

An
Essay on Trachitis.
Submitted to the
Medical Professors
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for the
Degree of Doctor of Medicine
by
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Essay on Trachitis.

Of the various names given to this disease by those who have written concerning it, that of Trachitis appears to be the most appropriate. It is a disease, about which little appears to have been correctly ascertained, until about the middle of the last century, and, by some, the disease is supposed to be of modern origin.

To Dr. Home of Edinburgh is generally allowed the credit of first having had correct ideas in relation to it, although others, before him, had taken notice of it. He wrote in the year 1763, and his observations were made at Leith, a seaport in the neighbourhood of Edinburgh, and at which place it, was very prevalent.

Trachitis generally attacks children from one, to five or six years of age, although it

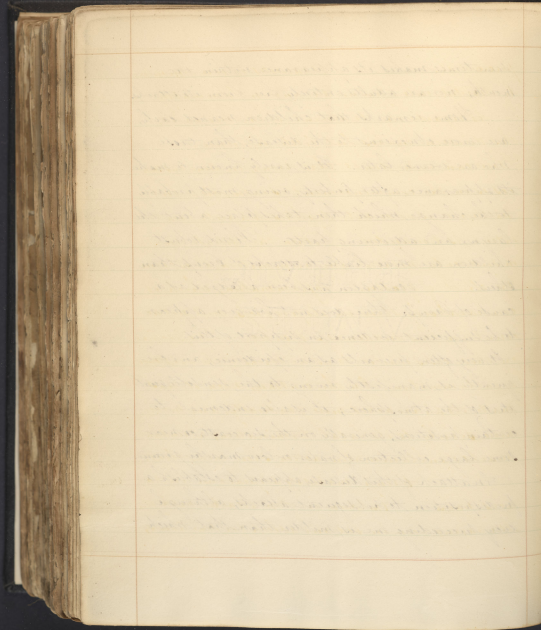
sometimes makes its appearance within the month; nor are adults entirely free from its attacks.

Home remarks that children, weaned early, are more obnoxious to the disease, than those who are weaned later. It is rarely known to make its appearance after puberty, owing, most probably to the change, which then takes place, about the larynx and adjoining parts. Placid, robust children are more liable to attacks of Croup than others.

Contagion has been alleged as a cause of Croup: there does not however appear to be sufficient evidence in support of this.

It very often prevails as an epidemic; and frequently is manifestly owing to the sensible qualities of the atmosphere; it is also endemic to certain positions, generally on the sea coast, or near some large collection of water or low, marshy ground.

An attack of this disease, appears to establish a predisposition to subsequent attacks, although every succeeding one is, milder than that which



preceded it.

Trachitis is very commonly divided into *Spasmodic*, and *Inflammatory*.

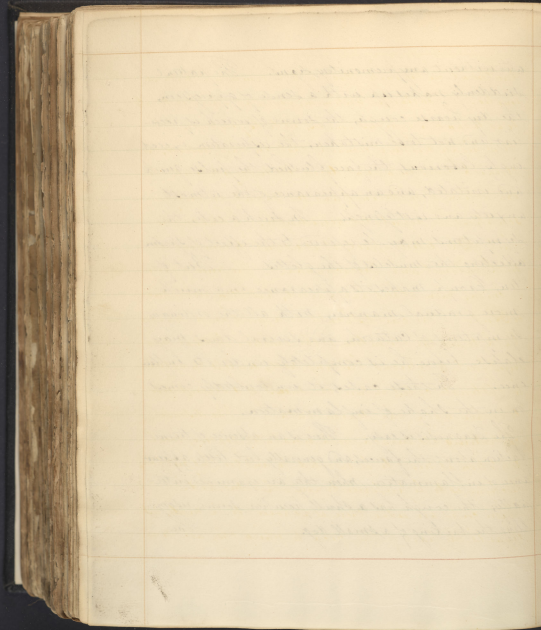
As regards the treatment of the two cases, this division makes but little difference.

There can be no doubt that Croup, in some instances is in the commencement, *Spasmodic*—but whether it is so, or not, depletion to a pretty great extent, is demanded. When the disease comes on suddenly, without any premonition, it is from the effect of spasm. Inflammation, which is comparatively slow in its progress, will not account for this suddenness of onset. Dissections in these cases exhibit ~~to us~~ no traces of the existence of inflammation. On the contrary, when it has made its approach, more gradually, and moved more slowly to its fatal termination; abundant marks of inflammatory action, shew themselves.

Croup makes its appearance in various ways. Children are often attacked with it, after having been in bed and asleep for some hours,

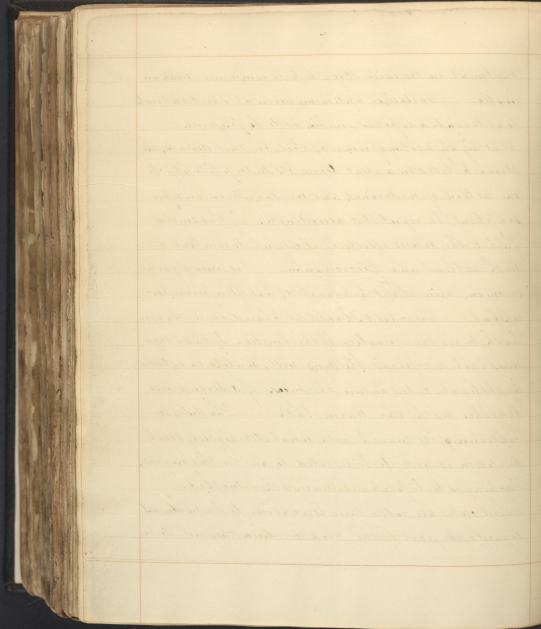
and without any premonitory signs. The patient suddenly wakes up with a sense of oppression, the dry hoarse cough, the sound of which is peculiar and, not to be mistaken, the respiration exceedingly laborious, the face flushed, the pulse quick and irritated, and an appearance of the utmost anxiety and restlessness. In such a case, the symptoms may be referred to the effect of Spasmod affecting the muscles of the glottis. But often, Croup, makes its appearance in a much more gradual manner, with all the ordinary symptoms of Catarrh, and several days may elapse, before he is completely under its influence. In these cases, it undoubtedly comes on in the shape of inflammation.

The Diagnosis is easy. There is an absence of tumefaction about the fauces, and generally but little appearance of inflammation, when they are examined internally; the cough has a shrill peculiar sound, resembling the barking of a small dog. The

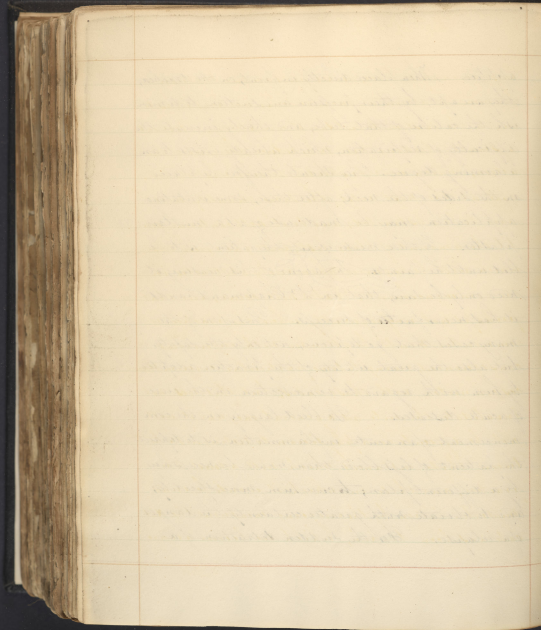


treatment in the early stage is to be commenced with an emetic. Tartarized antimony given at short intervals so as to cause a copious emesis, is to be preferred.

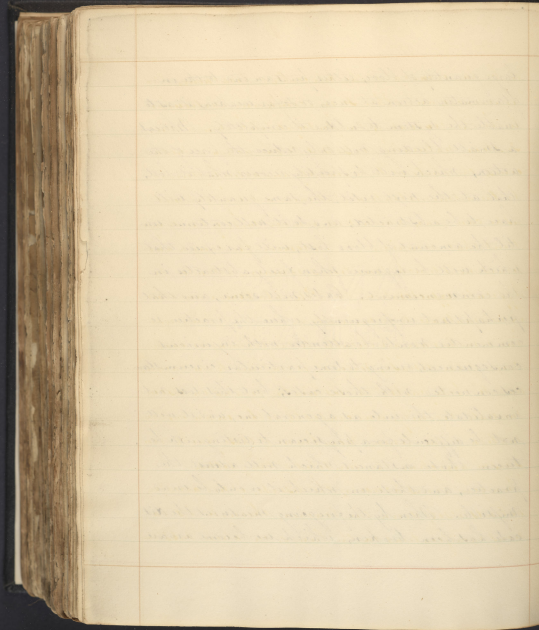
It is highly worthy of remark, that, in this disease, the stomach loses in a great degree, its susceptibility to the action of medicines, and we should in our prescriptions, be regulated accordingly. If this emetic fail of the desired effect, it is useful to combine it with Calomel and Ipecacuanha. The juice of garlic or onion, when others have failed, has often proved successful. The child should be placed in a warm bath to aid the operation of the emetic. If these measures fail, a copious bleeding, will, unless in extremely obstinate cases, insure the success of a second dose, together with the warm bath. The disease continuing its march, with unabated vigour, local depletion is next to be resorted to, and for this purpose, leeching is to be preferred to any other method. Where cups are used, there is a choice to be made, as regards the part of the neck to which they are to be



applied. When placed directly in front, on the trachea, they are apt, by their pressure and suction, to diminish the calibre of that tube, and thereby increase the difficulty of respiration, which already exists to an alarming degree. They should therefore be placed on the sides of the neck; after these, some irritating application may be made use of as a mustard-plaster. At these measures, the patient is to be bled until he faints. In favour of this measure, it need only be said, that in Dr Chapman's hands it has never failed of success. This is one of the many cases that go to prove, not only the safety, but also the great utility of the practice adopted by him with regard to venesection in the cure of acute diseases. To bleed largely in the commencement of an acute inflammation, is to deprive the patient of less blood than would be necessary by a different plan; to cure him more speedily; and to obviate with greater certainty the danger of a relapse. For, the sudden detraction of a



large quantity of blood, either puts an end to the inflammatory action at once, or so far weakens it, as to enable the system to subdue it completely. Whereas, a small bleeding, will only reduce the force of the action, which will so speedily recover, what it lost, that at the next visit, the same quantity will have to be abstracted; and so it will continue until the amount of blood lost, will far exceed that which will be required when freely abstracted in the commencement. Cases will occur, and that perhaps not unfrequently, where the practice recommended would be attended with injurious consequences, owing to some particular circumstances connected with those cases; but this does not invalidate the rule as a general one, and it will not be difficult for a physician to distinguish between those instances, which will admit the practice, and those in which it would be inadvisable. Then by the foregoing measures the disease has been broken, which we become aware

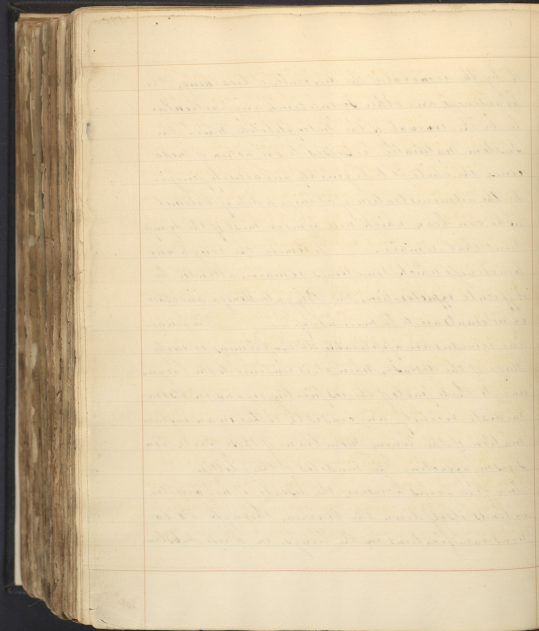


of by the removal of the difficulty of breathing, the hoarseness, and other symptoms, and particularly by the revival of the susceptibility which the system naturally possesses to the action of medicines, the child is to be quickly and actively purged by the administration of as large a dose of Calomel as he can bear, which will remove most of the symptoms that remain.

To remove the cough and hoarseness which sometimes remain, attended by difficult expectoration, the *Polygala Bengala* and other expectorants are to be made use of.

The foregoing remedies are applicable to the forming or early stage of the disease, when it is confined to the larynx, and to those parts of the respiratory organs in its immediate vicinity, and consists, either in an inflammation of the lining membrane of those parts, or in Spasm affecting the muscles of the glottis.

In a few hours however, the disease, if not arrested, extends itself down the trachea, through its various ramifications in the lungs, in whose substance



will now be found collections of mucus, lymph &c, or the whole structure will be congested with blood.

There are two conditions, in which the lungs, at this conjuncture may be placed: either in that of Bronchitis, (or inflammation of the bronchia) or in a suffocative state from congestion of blood in those organs. When the crisis has arrived at this stage, the symptoms differ essentially from those of the forming stage. The respiration is very difficult, the face suffused, the eyes prominent and inflamed; the pupil often much dilated, the countenance is wild, haggard and ghastly; some fever also attends, with the pulse full and much disturbed; the patient is altogether in a very restless and inquiet state. The symptoms incident to the two different states are so similar, that it is not easy to determine whether the lungs are congested, or the bronchia inflamed. Where it has been of the nature of Bronchitis, the progress of the disease has been slower, and is attended with very much

When the surface is cold and clammy, there is also, either some expectoration, or if not, there is at least sufficient evidence that there are accumulations of matter in the lungs; the pulse is full and diminutive. But when the lungs are congested with blood, there is little, or no expectoration; the wheezing so remarkable in the other stages, is absent; the respiration is much hurried, and often so difficult, that the patient has to be raised and supported in an erect posture, to prevent suffocation; the pulse is full, and readily compressible.

This state of things occurs mostly in robust and florid children, and sometimes in exactly the reverse.

The patient, in either of these cases is to be placed in a warm bath, and while there an emetic is to be given. The Sulphate of Zinc is to be used, or Tartar emetic alone, or with Calomel and Zuccacuanha. If these fail, the juice of garlic or onions, in the dose of a tea spoonful, and repeated until vomiting is excited, is very useful. When the lungs are congested, it may be advisable, in addi-

tion to these means, to bleed. This must, however,
be done with great caution, as there is so much blood
collected in the lungs, and of course lost to the cir-
culation, the abstraction of a quantity with too much
rapidity, would induce irreparable exhaustion. We
must therefore, take a small quantity at a time, and
watch how the system bears it: if well - take a
little more, and so on; in this manner the lungs
may be relieved of their load. When we find that
the patient cannot bear the loss of blood from the
system, it is advisable to apply cups to the spine,
followed by a blister to the chest; or a decoction of
Cantharides in turpentine, which produces a more
speedy respiration. Next we are to make use of
expectorants, as Squills, Antimonial wine, Decoction
of Polygala Senega, alone or with Carbonate of Ammo-
nia. Cox's Hicc Syrup is excellent; Calomel is, how-
ever, the best expectorant.

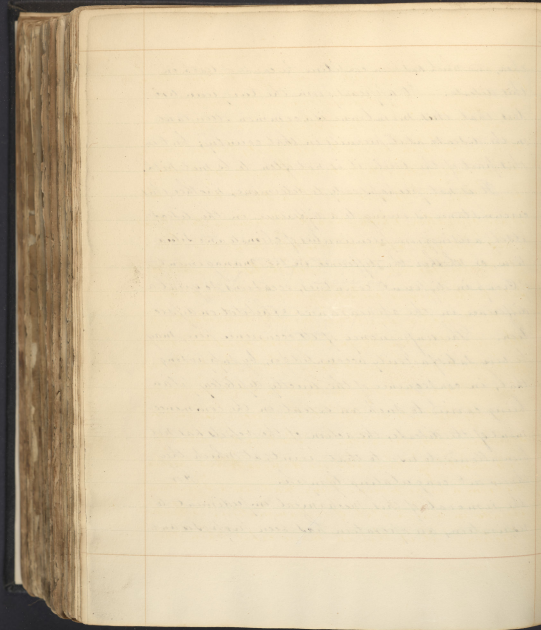
The removal of this membrane is - A great deal
has been said of a membrane being formed in the tra-

the first part of the year, the weather was
very warm and the crops were very good.
In the middle of the year, the weather
became cooler and the crops were not so
good. In the last part of the year, the
weather was very cold and the crops
were very poor. The weather was very
warm in the first part of the year, but
it became cooler in the middle of the
year. In the last part of the year, the
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chea, and, which has been considered the cause of death in this disease. It appears from the European writers, that this membrane is a common attendant on the disease as it prevails in that country; but in this part of the world it is not often to be met with.

It is not perhaps easy to determine, whether this circumstance is owing to a difference in the disease itself, arising from peculiarities of climate and situation, or whether the difference in the management of Croup in different countries, occasions so great a difference in the appearances exhibited on dissection. The infrequency of its occurrence here, may be very satisfactorily accounted for, by supposing that, in consequence of the directly depletion plan being carried to such an extent in the commencement of the disease, the action of the vessels has not been allowed to rise to that point, at which they throw out coagulating lymph. For

the removal of this mechanical impediment to respiration, an operation has been proposed and

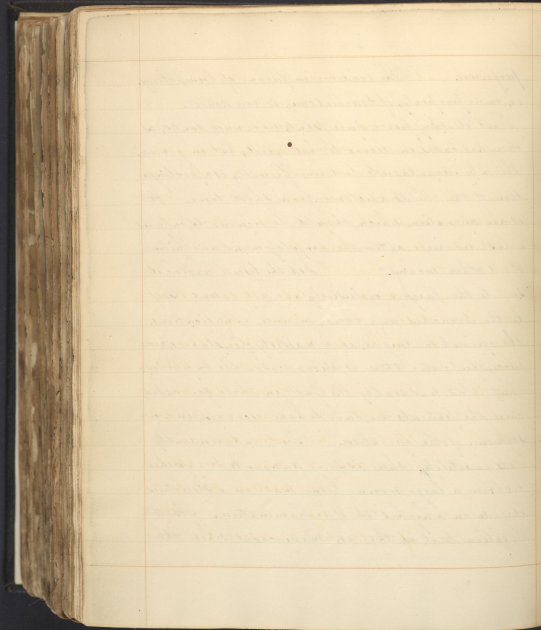


performs. The evidence in favour of bronchotomy, or, more properly, of tracheotomy, is very small.

That it may prove successful, we cannot doubt, as there are cases on record to that effect; but in general, the only advantage to be derived from it, is a prolongation of the child's existence for a short time. It is an operation which should be resorted to, only as a last resource after the employment and failure of all other means.

Did the disease confine itself to the larynx exclusively, and not extend itself to the bronchia and their minute ramifications, the operation might, in a majority of instances, prove successful; and there is strong reason for supposing that this was really the fact in those few cases, where the patients are said to have recovered in consequence of the operation.

But, independently of its ineffectuality, there is some danger to be apprehended from a large wound being made in a structure already in a high state of inflammation. Another objection to it is, that in many cases, when the



incision has been made into the trachea, the membrane will be found to have so little cohesive power, as to give way to the force exercised in order to extract it, rendering it impossible to remove it, and the more so, because the strength of its attachment to the lining membrane of the tube, is greater than its own tenacity; and if a portion of the inflammatory membrane be loosened only, it must when the patient makes an effort at inspiration, fall down and close the canal entirely, and thereby destroy life. Again, this operation must evidently be useless, when the obstruction is caused, not by the membrane, or not by it alone, but by those large collections of mucus or puriform matter, with which the bronchia are overloaded, and which, probably have a more active agency in the death of the patient than the membrane itself.

But whatever may be the different opinions, with regard to the propriety of tracheotomy; if the mode of treatment, of which a

sketch had been presented in the foregoing pages, more generally adhered to, few cases, in all probability, would occur, in which the efficacy of this operation would be required to stand the test of experience—

In this disease, with such celerity and vigour does it pursue its course, not a moment of time is to be lost. A few hours only, make the difference of life and death to the patient, and the timidity of the practitioner, may often prove fatal.

As a rule for the guidance of the physician when called to a case of Croup, I can do no better than transcribe the words of Dr. Keppelman in his Essay on Croup.

"In the disease before us, the practice must be prompt and energetic, and our attendance unremitted till relief is afforded. It is a rule with me, never to leave a child, in Croup, till the alarming symptoms are over. This great degree of vigilance and attention are necessary, from the rapid career of the disease, and not left from

the extreme and peculiar uncertainty of the operation
of our remedies, in it."

As regards Group, the means of prevention
are obvious. Warm clothing, an avoidance
of exposure to bad weather, and a removal, till
puberty from those situations, where it is ende-
mic, will go far towards ensuring a child's safe-
ty from its attacks. —

